

**Date:**

**Subject: SCIENCE**

**Grade: 7/8**

## **ONTARIO CURRICULUM EXPECTATIONS**

[Include both numbers and details (cut and paste content) from the curriculum documents – 2/3 specific expectations, not exhaustive]

### **Overall: Understand INTERACTIONS IN THE ENVIRONMENT**

**Specific:** demonstrate an understanding of Piping Plovers (PIPL) as something that interacts with its environment, and how other elements within the environment interact to create an ecosystem. Demonstrate an understanding of human and nature interaction in relation to PIPL in particular.

### **LEARNING GOALS**

Are specific curriculum expectations rephrased in learner-friendly language- what will learners learn? Why this lesson?

We are learning about Piping Plovers and environmental interactions- what are important features of a healthy PIPL habitat? How do these habitat elements interact and benefit from each other? How do humans affect PIPL beach environments, and what can humans do to help conserve this environment?

### **SUCCESS CRITERIA**

"I can" statements that specifically outline what the learners need to do to achieve the learning goal.

I can identify a Piping Plover. I can explain their interactions with their surrounding environment, as well as how other parts of the environment interact to create a whole ecosystem. I can explain how humans can help conserve the PIPL and their environment.

### **ASSESSMENT TASKS & TOOLS ('as/for/of' learning)**

Will you check to see what learners know already? (assessment for learning, i.e. KWL/questioning)

How will you check learner understanding? (assessment as learning, i.e. self assessment/high five)

What are the key tasks, performances, activities, (assignments) in this lesson that will allow learners to best demonstrate that they have achieved the Learning Goals?

What assessment tools will be most appropriate to collect data? (eg. Rubric, anecdotal, check list, etc.)

- Assessment tool- completion of Activity Book- stickers and/or notes of achievement on pages

### **RESOURCES**

List of resources that will be used to facilitate learning. Include a list for both the teacher and the learner.

- Slide show style presentation for teachers, PIPL Activity Book for learners

### **ACCOMMODATIONS**

Example of at least one accommodation that might be used for a learner with specific needs.

### **INTRODUCTION**

The "HOOK", Motivator, Introduction to the Lesson

Explains the purpose of the lesson

Engages and motivates learners

- Ask about local beaches- have they ever been? Trips with family and friends? Do they like the beach? What are some fun beach activities? Have they ever noticed any fun/cool plants or animals?

### **BODY OF LESSON**

Includes a STEP by STEP process as to how the lesson will be carried out

Includes VARIED and ACTIVE teaching strategies (D.I.) to best achieve the Learning Goal

Consider development of Literacy Skills

Explain in detail, what exactly you will do and what you expect the learners to do.

Break up the lesson into clear sections and think about transitions from task to task.

Time needed to distribute and collect resources

Assessment of tasks or assignments

#### **The Plan...**

1. Start by introducing pictures of PIPL and point out key identifying features (colouring, bill, feet, size comparison).
2. Bring awareness to the surrounding environment of PIPL in pictures- where do they live? Briefly discuss the time of year when birds arrive, as it relates to migration. Ask about knowledge of beaches- what else lives there? What about non-organic matter? How do some of these things interact with each other? Why are these interactions important?
3. Move onto nesting and chicks- what can a PIPL use to build a nest? What beach materials can help with camouflage and hiding/protection? Briefly describe courting behaviour leading to finding mates and building nests.
4. Show pictures of nests/eggs/chicks. Use shadowbox to demonstrate real life size.
5. Ask students to think of predators that live near the beach who might prey on PIPL adults and chicks- show examples and have students identify and learn each species shown (gulls, crows, raccoons, etc). What kind of interaction is this?

6. Ask students to consider how humans might harm PIPL (stepping on nests, scaring birds, etc).
7. Introduce students to ways of how humans can help PIPL survival- nest cages, perimeter fencing, signage, giving birds lots of space, etc.
8. Move onto how to conserve the beach environment and how it relates to helping PIPL- dune protection, clean water, vegetation on beach for hiding, etc. Point out how each element interacts and is entwined in a series of connections with other elements within this environment, and the consequences of losing an element and how it relates to others.
9. Show progressive pictures of chicks growing up- briefly describe banding and how researchers use bands to study PIPL (keeping track of individual PIPL, etc.). Discuss how increase in populations may point to improved habitats and biodiversity health.
10. (work in activity book along the way- correlate presentation to various pages of book)

### **CONCLUSION, REVIEW, WRAP UP OF LESSON**

Recap of lesson to determine that the learners understand what you have taught. Assign seatwork/homework to the learners.

- Conclude with asking students about future beach visits and if they will help protect the PIPL- will they tell their family about it? Do they agree humans should help take care of PIPL and support biodiversity?

### **REFLECTION OF LESSON**

What went well?

What would you do differently next time?